

zona. Now it is reported in Newfoundland, with no records, so far as I am aware, for the vast stretch of land between the two regions. What agency could have transported it for a distance of about 2,500 miles and dropped it in the mountains of Newfoundland, and left none along the route? The line does not follow the direction of the migration flight of birds. If it was carried by wind there should be more along the line of travel than at the farthest known extremity, but they have not been found. It has not been reported from Wyoming, Montana³ or the Rocky Mountain region of British America, thus indicating the improbability that it extends through the conchologically but little known regions of northern Canada and down the Rocky Mountains.

If the isolated occurrence of this species in Newfoundland really means a survival of the species at the extreme eastern end of its pre-glacial range, then it shows the antiquity of the species. More thorough exploration may reveal other western species in the same region, whence they have not been able to reinvade the surrounding territory since the retreat of the continental glaciers. I am not sure that the Newfoundland *Vertigo* was found in the unglaciated area, but it could not have been far from it.

A NEW HUMBOLDTIANA FROM TEXAS

W. J. CLENCH AND H. A. REHDER

Among a large number of shells from southwestern and middle western sections of this country sent one of us by Mr. Ernest J. Palmer, there was a lot of the genus *Humboldtiana* from Mt. Livermore, Davis Mountains, Texas. Upon examination and comparison with other species in this genus it was found to be new and has been named for

³ *V. coloradensis basidens* is known from Montana and British Columbia.

the collector, who is connected with the Arnold Arboretum of Harvard University, and who, in his botanical expeditions, has shown a keen interest, not only in the botanical, but also in the geological and zoölogical characteristics of the country.

A note on the habitat of the snail may be of interest, this information being taken from Mr. Palmer's paper, "The Ligneous Flora of the Davis Mountains, Texas". (Jour. Arnold Arboretum, X, no 1, Jan. 1929).

The Davis Mountains are in Jeff Davis county in western Texas. They are a group of rugged mountains, some peaks being isolated, and others arranged in irregular groups separated by deep canyons and high cliffs. These mountains are of igneous rock, except for an exposure of sandstone in one place, and for some beds of Comanchean limestone on the northern slopes of the mountains.

The highest peak is Mt. Livermore also known as "Baldy Peak", which has an elevation of 8,382 feet. Several canyons lead up to this peak, and this species was found at the head of Madera Canyon, which is on the north side of the mountain, at a height of approximately 7,350 feet. These canyons end up under high cliffs which rise up along the western and northern sides of the peak. At the base of these cliffs is a deep slope of talus, covered with moss and lichens. In depressions considerable soil and humus has accumulated, and as a result a dense growth of shrubs and small trees is found over a part of the talus, indicating that considerable moisture must be received. The cliffs also furnish some protection from the hot dry winds and from the direct sunlight during part of the day.

Mr. Palmer tells us that as he was collecting here at the base of the cliffs, a light shower mixed with a little hail came up, and immediately these snails began coming out in large numbers from the bases of the male fern and from under mossy rocks and beds of *Selaginella*. (op. cit., pages 27-28).

Two bleached specimens of a *Humboldtiana* were also

taken by Mr. Palmer at Sawtooth Mountain (7,748 ft.), which lies several miles northwest of Mt. Livermore. We hesitate to describe this apparently new species or variety owing to the condition of the specimens. It approaches *H. ferrissiana* Pils. in size but has a higher spire. The two specimens measure:

Height, 33, greater diam. 34 mm.

Height, 27.5, greater diam. 31 mm.

The only other species, *H. ferrissiana*, from the Davis Mountains is from Miter Peak.

Humboldtiana palmeri, n. sp. Plate 2, fig. 1-4.

Shell: thin but strong, subglobose, whorls 4, umbilicate, buckthorn brown in color with occasional irregular straw yellow mottlings along growth lines. Three seal-brown bands encircle the shell. The young shells, of $3\frac{1}{2}$ whorls are somewhat lighter, honey yellow in color. First half whorl smooth, following $\frac{3}{4}$ whorl finely rugulose-granulose, following whorls distinctly granulose even over the last quarter of the final whorl; granulations extend over the base though somewhat less distinct. The whorls marked by irregular growth wrinkles, the granulations continuing over the wrinkles (fig. 1). Whorls convex, increasing rapidly, the last whorl descending slightly. Aperture oblique, and appearing almost circular; peristome thin, only occasionally very slightly thickened on the inside. Columellar margin strongly reflected over the umbilicus. Interior nacreous-whitish, bands showing through distinctly.

Ht. 22, gt. diam. 26.1, less. diam. 20.5, ap. h. 17.9, ap. w. 14.4 mm. Holotype.

Ht. 21, gt. diam. 25, less. diam. 19.5, ap. h. 16.1, ap. w. 14.1 mm. Paratype.

Ht. 25.5, gt. diam. 24.5, less. diam. 21.5, ap. h. 15.7, ap. w. 13.2 mm. Paratype.

Ht. 20.5, gt. diam. 23.7, less diam. 19, ap. h. 15, ap. w. 12.9 mm. Paratype.

Head of Madera Canyon, 7,350 alt., Mt. Livermore, Davis Mountains, Jeff Davis County, Texas. Coll. by Ernest J.

Palmer. Holotype M. C. Z. No. 79779. Paratypes M. C. Z. No. 79780. Also collections A. N. S. P. 151227, A. F. Archer and H. Rehder.

This species differs from the four other Texan species of *Humboldtiana* described by Pilsbry (Proc. Acad. Nat. Sci. Phila., 1927, p. 165, and NAUTILUS, vol. 41, p. 82, 1928) by its distinct and strong granulose sculpture which extends up to the peristome and over the base. In this respect it seems to resemble most closely the Mexican species, occupying a position midway between the Mexican and Texan species. Besides differing in the intensity and amount of granulation, *H. palmeri* n. sp. differs in the following respects from the other Texan Humboldtianas. From *H. texana* Pils. it differs in being of much darker color, in being more depressed, and all three bands being equally broad and distinct. *H. chisosensis* Pils., which it perhaps resembles most closely, is usually somewhat larger and more depressed. From *H. ultima* Pils., it differs in lacking the whitish mottling and in the bands being more solid. From the only other Davis mountains species, *H. ferrissiana* Pils., it differs in being smaller, darker in color, the lower band not weak and interrupted but solid.

ADDITIONAL NOTES ON THE COLONY OF *HELIX NEMORALIS*
AT MARION, MASS.

BY W. J. CLENCH

On May 12, Mr. Archer, and Mr. Rehder, together with the author paid a visit to the colony of *Helix nemoralis* that has been established at Marion, Massachusetts, on Buzzards' Bay. Dry weather has been the rule during the past few weeks, and as a consequence only a few individuals were found actively moving about.

The colony is roughly limited to about six acres of ground, four acres of which are for flower gardens and homes and about two acres of open grassland. The species is, by far, most abundant in the open field, in and around